



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,764	03/22/2004	D. Gregory More	03-318-US3	1239

34704 7590 03/10/2005  
BACHMAN & LAPOINTE, P.C.  
900 CHAPEL STREET  
SUITE 1201  
NEW HAVEN, CT 06510

EXAMINER

COMPTON, ERIC B

ART UNIT	PAPER NUMBER
----------	--------------

3726

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

5N

<b>Office Action Summary</b>	<b>Application No.</b> 10/805,764	<b>Applicant(s)</b> MORE ET AL.	
	<b>Examiner</b> Eric B. Compton	<b>Art Unit</b> 3726	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
     4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of Invention I, Species A, claims 1-10 in the reply filed on December 23, 2004 is acknowledged. The traversal is on the ground(s) that "the inventions and species are sufficiently related so as to be searchable in a single application without undue burden." This is not found persuasive because, 35 U.S.C. 121 provides that restriction may be required to one of two or more independent and distinct inventions. See MPEP 806.04(a). Species, while usually independent, may be related under the particular disclosure. Where inventions as disclosed and claimed are both (A) species under a claimed genus and (B) related, then the question of restriction must be determined by both the practice applicable to election of species and the practice applicable to other types of restrictions such as those covered in MPEP § 806.05 - § 806.05(i). See MPEP 806.06(b). Where two or more related inventions are being claimed, the principal question to be determined in connection with a requirement to restrict or a rejection on the ground of double patenting is whether or not the inventions as claimed are distinct. If they are distinct, restriction may be proper. MPEP 806.05. MPEP 802.01 states:

The term "distinct" means that two or more subjects as disclosed are related, for example, as combination and part (subcombination) thereof, process and apparatus for its practice, process and *product made*, etc., but are *capable of separate manufacture*, use, or sale as claimed, AND ARE PATENTABLE (novel and unobvious) OVER EACH OTHER (though they may each be unpatentable because of the prior art). It will be noted that in this definition the term related is used as an alternative for dependent in referring to subjects other than independent subjects.

(emphasis added). The standard thus, is whether or not the products are different or "capable of separate manufacture." The Examiner previously noted that the product need not necessarily be formed with a particular second layer, as claimed. Applicant has not proffered sufficient evidence to refute the Examiner's rationale. It is further noted that the search of the method of Invention II, is more comprehensive than for the article formed, e.g., a seal of Invention I, claimed.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 11- 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

#### ***Priority***

3. Applicant should amend the priority statement to reflect the status of the parent application 10/002,684, as abandoned.

#### ***Information Disclosure Statement***

4. It is noted that there has been no information disclosure statement (IDS) filed in this application. A number of references were considered in the patent application 10/002,684. Should Applicant wishes these references to formally be considered in this application, Applicant should file an IDS in compliance with the provisions of 37 CFR 1.97.

***Drawings***

5. The drawings are objected to under 37 CFR 1.83(a) because they fail to show Applicant's preferred coatings: MAR M2000 and MAR M247 in Figure 6-7, as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

6. Claim 1 is objected to because of the following informalities: the claims should have temperature values states in both English and SI units. See e.g., claim 7. Appropriate correction is required.

7. Claim 7 is objected to under 37 CFR 1.75(c), for failing to further limit the subject matter of a previous claim. Claim 7 specifies that the target operating temperature is about 1600°F (871°C) to 2000°F (1093°C). However, claim 1, for which claim 7 depends, claims the target operating temperature *in excess of 900°C*. (emphasis added). Thus, claim 7 seems to be in conflict with claim 1, which precludes a target operating temperature of about 1600°F (871°C).

***Allowable Subject Matter***

8. Claims 1-10 are allowed.

9. The following is an examiner's statement of reasons for allowance: the prior art of record does not teach or suggest a process for manufacturing a high temperature compression seal comprising first and second layers, "wherein the second layer has a higher resistance to stress relaxation than does the first layer at a target operating temperature in excess of 900°C," in combination with the other claimed subject matter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

10. This application is in condition for allowance except for the following formal matters noted and discussed above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

### ***Prior Art References***

The prior art references listed on the enclosed PTO-892, but not used in a rejection of the claims, are cited for their teachings of forming high temperature seals.

U.S. Pat. 6,302,402 to Rynders et al discloses a similar invention to Applicant. However, the coating layer is "a softer flowable coating which conforms to minor irregularities in the surface of the members be sealed." Col. 7, lines 62-65. "Preferably the costing is a softer metal such as silver or gold, or alloys containing silver or gold, and is plated on a t least a portion of the ring surface. Other material can be used, either alone or in alloys, such as copper, nickel, palladium, and platinum." Col. 8, lines 1-5. The Examiner does not believe a softer flowable coating is capable of having "a higher resistance to stress relaxation than does the first layer at a target operating temperature in excess of 900°C."

U.S. Pat. 6,299,178 to Halling discloses, "one object of the invention is to provide a seal which, by virtue of the incorporation of inflection regions, arrests the bending stress in the seal's crests and/or roots before a limiting value, for example, of yield stress, fatigue stress, or *relaxation stress is reached*, while simultaneously allowing the axial displacement along the seal's longitudinal axis to continue until a different and less stressed region of the seal reaches its limiting value." Cols. 1-2, lines 65-5 (emphasis added). However, there is no disclosure of the particulars of the layers.

U.S. Pat. 5,249,814 to Halling discloses a two-ply seal, but notes the layers may include INCONEL 718, and AMS 5589 or 5569. See Col. 5, lines 1-2. The reference



Art Unit: 3726

notes the seal may be made of different materials having different compositions or desirable mechanical properties. See Col. 4, lines 22-27. However there is no teaching or suggestion "that the second layer has a higher resistance to stress relaxation than does the first layer at a target operating temperature in excess of 900°C."

The Harada et al. article generally discloses properties of nickel-based superalloy, but does not disclose a coating on a compression seal, nor that the coating is capable of having "a higher resistance to stress relaxation than does the first layer at a target operating temperature in excess of 900°C."

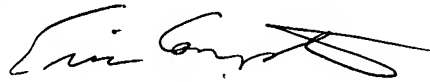
#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Compton whose telephone number is (571) 272-4527. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric B. Compton  
Primary Examiner  
Art Unit 3726

ebc